

Claims

1. (currently amended) A magnetic thin film layer structure comprising:
 - a layer of RuAl;
 - a layer of NiAlB epitaxially deposited on the layer of RuAl; and
 - a ferromagnetic layer structure deposited after the layer of NiAlB.
2. (original) The magnetic thin film layer structure of claim 1 wherein the NiAlB has approximately from 2 to 5 atomic percent boron with the remainder being generally divided between nickel and aluminum.
3. (original) The magnetic thin film layer structure of claim 2 wherein NiAlB has approximately 50 atomic percent nickel, 48 atomic percent aluminum and 2 atomic percent boron.
4. (original) The magnetic thin film layer structure of claim 1 further comprising a substrate and a pre-seed layer of CrTi deposited on the substrate prior to the layer of RuAl.
5. (currently amended) The magnetic thin film layer structure of claim 5 ~~claim 4~~ wherein the substrate is circumferentially textured glass.
6. (original) The magnetic thin film layer structure of claim 1 further comprising an underlayer of CrTi deposited on the layer of NiAlB.
7. (currently amended) The magnetic thin film layer structure of claim 1 wherein the ferromagnetic layer structure further comprises ~~comprising~~ a magnetic layer stack including a layer of CoCr and a layer of CoPtCrB separated by a spacer layer.

8. (original) The magnetic thin film layer structure of claim 7 wherein the spacer layer is ruthenium.

9. (currently amended) A magnetic thin film disk comprising:
an amorphous or nanocrystalline pre-seed layer;
a seed layer of RuAl with a B2 crystallographic structure deposited on the pre-seed layer;
a seed layer of NiAlB ~~deposited~~ with a B2 crystallographic structure deposited on the layer of RuAl, the NiAlB having approximately from 2 to 5 atomic percent boron with the remainder being generally divided between nickel and aluminum; and
a at least one ferromagnetic layer structure above the layer of NiAlB.

10. (cancelled) The magnetic thin film disk of claim 9 wherein the NiAlB has approximately from 2 to 5 atomic percent boron with the remainder being generally divided between nickel and aluminum.

11. (currently amended) The magnetic thin film disk of claim 10 wherein the seed layer of NiAlB has approximately 2 at. % boron.

12. (original) The magnetic thin film disk of claim 9 further comprising a substrate and wherein the pre-seed layer is CrTi deposited on the substrate.

13. (currently amended) The magnetic thin film disk of claim 9 further comprising an underlayer of CrTi deposited on the layer of NiAlB prior to the ferromagnetic layer structure.

14. (currently amended) The magnetic thin film disk of claim 9 wherein the ferromagnetic layer structure includes is CoPtCrB and is preceded by a spacer layer and a layer of CoCr forming a magnetic layer stack.

15. (currently amended) A magnetic disk drive comprising:
a magnetic transducer including a read head and a write head;
a suspension supporting the magnetic transducer over a magnetic disk;
and
the magnetic disk including a dual seed layer comprising a layer RuAl
followed by a layer of NiAlB epitaxially deposited onto the layer of RuAl of
RuAl/NiAlB.
16. (currently amended) The magnetic disk drive of claim 15 wherein the layer of
NiAlB has approximately from 2 to 5 atomic percent boron with the remainder
being generally divided between nickel and aluminum.
17. (currently amended) The magnetic disk drive of claim 16 wherein the layer of
NiAlB has approximately 50 atomic percent nickel, 48 atomic percent aluminum
and 2 atomic percent boron.
18. (original) The magnetic disk drive of claim 15 wherein the magnetic disk
further comprises a circumferentially textured substrate and the magnetic disk
has an Mrt orientation ratio greater than one.
19. (original) The magnetic disk drive of claim 15 wherein the magnetic disk
further comprises an underlayer of CrTi deposited on the layer of NiAlB.
20. (currently amended) The magnetic disk drive of claim 15 wherein the
magnetic disk further comprises a magnetic layer stack deposited after the layer
of NiAlB including a layer of CoCr and a layer CoPtCrB separated by a spacer
layer.